Parks Canada

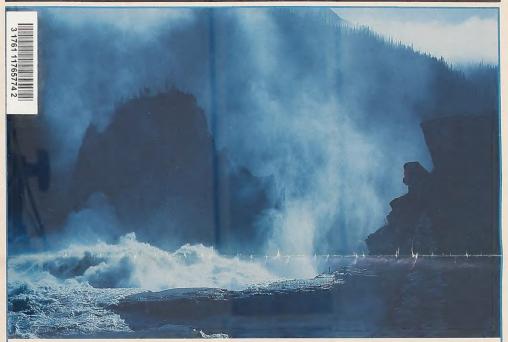
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February, 1983

Management Planning Program

Newsletter Number 1



# A MANAGEMENT PLAN FOR NAHANNI

Parks Canada is beginning a program to develop a Management Plan for Nahanni National Park Reserve. When completed, the Management Plan will guide the development, management and operation of Nahanni for a period of ten to fifteen years. You are invited to participate in the preparation of the Management Plan.

A variety of opportunities for you to actively participate in the presparation of the Plan
will be available to you at each of the three
key decision-making steps of the planning
program. You are invited to express your
views regarding the future of Nahanni at
public meetings, drop-in centres and
workshops. You are also invited to express
your ideas and concerns by completing the
postage-paid mail-back comment portions
of this and future Nahanni Planning Program Newsletters and/or by submitting
priefs and letters. Your comments and suggestions will help Parks Ganada prepare



View of Virginia Falls.

Nahanni was set aside as a "reserve for a national park, subject to a settlement of any right, title or interest of the people of native origin" when the NATIONAL PARKS ACT was amended in 1974. The official proclamation of this action occurred on April 9, 1976. It is important to note that hunting, trapping and fishing activities by the native people of the Nahanni region will continue to be permitted within Nahanni National Park Reserve pending the legal settlement of native land claims in this area.

the best possible Management Plan for

This newsletter has been prepared to pro-

- Parks Canada's planning process for national parks and how you can participate in this process;
- the Park Purpose and Objectives Statement which has been prepared for Nahanni National Park Reserve;
- the National Parks Zoning System and its present application in Nahanni;
- Parks Canada's legislation and policies of direct applicability to Nahanni, summarized as proposed Planning Principles which will guide the Planning Team in preparing the Plan;
- a brief description of Nahanni's regional setting, natural resources, history, existing park development and
- those issues identified by the Planning Team to date which will be addressed in Nahanni's Management Plan.

#### WHAT IS A MANAGEMENT PLANT

A Park Management Plan is a policy-setting document by which Parks Canada administers the resources and uses of a particular national park or park reserve.

Each Management Plan is an expression of Parks Canada's policies for a national park within its regional context. It provides a definition of the purpose of the park and outlines the degree to white park resources must be protected as well as the opportunities that are available to understand and enjoy the park. The Plan also provides a statement of management objectives for the park and the means and strategies for achieving them, as well as guidelines for resource management, interpretation, visitor use and regional integration. The Management Plan is not an end in Itself; it is only a framework which outlines management strategies and development projects. Subsequent management, implementation, research and detailed planning will then take place according to the Plan. All Management Plans are approved by the Minister responsible for Parks Canada. The Plan guides the

management and operation of a park for ten to fifteen years.

Parks Canada monitors the implementation of a Park Management Plan on a continuous basis. The plan is also subject to a formal review every five years. Any significant changes recommended as a result of such a review will require public consultation. Any change to the approved Management Plan requires approval by the Minister responsible for Parks Canada.

# HOW IS A MANAGEMENT PLAN DEVELOPED?

A Management Plan for a national park or park reserve is developed according to a systematic process which consists of the following five steps:

- 1. preparation of the Park Purpose and Objectives Statement:
- 2. collection and analysis of information regarding the park's natural resources, previous and existing visitor use and park management practices, existing legislation and policies, and national and regional relationships affecting the park area and public use, in order to identify planning issues and to help formulate planning proposals (see Figure 1);
- formulation of Management Plan Alternatives which address the planning issues in a manner consistent with the Park Purpose Statement and Park Management Objectives;
- development of a draft Management Plan, and
   s. approval of a final Management Plan.

The Park Purpose and Objectives Statement prepared in Step 1 may be expanded or refined to more accurately reflect the nature of the park once

the results of Step 2 are available. The results of each step in the planning process form the basis for

Public Participation is an essential part of this planning process. As illustrated in Figure 2, the Nahanni Management Planning Program provides opportunities for public participation at the three decision making the standard process.

- opportunities for public participation at the three decision-making steps in the planning process: 1. Information Collection and Analysis and the
- Review of Management Plan Alternatives formulated to resolve the Planning Issues
- 3. Review of the Draft Management Plan

Public participation provides the opportunity for individuals and groups of varying interests to express their opinions, to become aware of the variety of concerns involved in park management, and to become aware of and to consider the range of public opinion regarding Nahanni and national parks in general. This will enable all participants to develop a better understanding of the objectives of Parks Canada and should lead to the development of a more effective and meaningful Parks.

The success of the Management Plan will be largely dependent upon the extent to which planning issues have been discussed and resolved with the local, regional and national publics.

Figure 2
NAHANNI MANAGEMENT PLANNING AND
PUBLIC PARTICIPATION PROGRAM

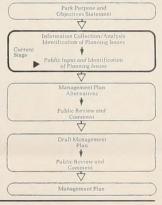


Figure 1 MANAGEMENT PLANNING FRAMEWORK



# THE PARK PURPOSE AND OBJECTIVES STATEMENT FOR NAHANNI NATIONAL PARK RESERVE

PARK RESERVE

Parks Canada's objective for the establishment and operation of national parks is:

"To protect for all time representative natural areas of Canadian significance in a system of National Parks, and to encourage public understanding, appreciation and enjoyment of this natural heritage so as to leave it unimpaired for future generations."

Parks Canada Policy, page 38

The National Parks System is made up of twentynine parks or park reserves; each park provides representation of the natural history features of one of thirty-nine terrestrial "National Park Natural Regions" identified in Canada. A Park Purpose and Objectives Statement which describes how a particular national park contributes to the fulfillment of Parks Canada's mandate is prepared for each of the twenty-nine national parks.

The Park Purpose and Objectives Statement consists of a prox description, a pork purpose stotement which provides general direction on the purpose of the park for protection, and public understanding, appreciation and enjoyment in its "Natural Region", as well as park objectives which define the park's long-term role for preservation and protection, appreciation, understanding and enjoyment of park resources, and its role in its surrounding region.

The Park Purpose and Objectives Statement for Nahaoni National Park Reserve follows. It will serve as a basis for the specific Park Management Objectives and the Park Management Plan that will be formulated during this planning process.

### Park Purpose and Objectives Statement

Nahanni National Park Reserve protects for all time a natural area of Canadian significance representative of the Mackenzie Mountains natural region. The park focuses on the South Nahanni and Flat rivers which, by carving through a series of mountain ranges, have created some of the finest examples of river canyons in Canada and the world. Other landform features of major significance are several mineral hot springs, extensive cave systems and a spectacular karst terrain The major vegetation zones in the park are northern boreal forest in the river valleys and alpine tundra at higher elevations. Several unique plant communities are represented around the hot springs, on Prairie Creek Fan and the Plateau areas. Particularly significant wildlife species are the peregrine falcon, golden eagle, trumpeter swan, gray wolf, grizzly bear, and Dall's sheep. Among the park's significant features that should be singled out for special attention are the Rabbitkettle, Hole-in-the-Wall, Wildmint and Kraus hot springs, the nesting habitats of trumpeter swans, the mineral deposits used by Dall's sheep, and Grotte Valerie, the solution cave with skeletons of over one hundred Dall's sheep which died thousands of years ago.

Nahani National Park Reserve will encourage public understanding of the meaning and value of its heritage resources. Special features which may serve to interpret what the park represents are: [1] Virginia Falls, one of North America's great waterfalls, in both height and volume; [2] First Canyon, where the South Nahanni River moves through steep walled gorges, [3] the "Splits", a good example of complex river braiding, [4] the solution caves of the karst topography including Grotte Valerie, [5] sand blowout features including hoodoo-like pillars, knobs and arches, [6] hot

springs including Rabbitkettle Hot Springs where tufa deposits have created the largest mound of its kind in Canada, (7) pseudo-karst features such as the frost pockets of the First Canyon area and the piping sink holes of the Rabbitkettle and Yohin Lakes areas, and, (8) the South Nahanni and Flat River valleys with their excellent examples of glacial landforms such as hanging valleys and cirques. Also of interest are the legendary exploits of gold seekers and other adventurers.

The park encourages appreciation and enjayment oil its wilderness, rugged environment and natural beauty. Visitors can experience the thrill of superb wild river louring on both the South Nahamil and Flat rivers. This is the primary experience offered by the park. The overwhelming force and power of Virginia Falis is a spectacle of nature that is forever remembered by those who have seen it from the valley below. The visitor can be intrigued and fascinated by the beauty of Rabbitkettle Hot Springs, the cave systems and glacially sculptured landscape. Whether one stays in the canyons or hikes in the backcountry, the spectacular rugged scenery will kindle a greater appreciation and understanding of this northern wilderness.

The remote location of Nahami means that recreation areas are not well developed in the region. The park reserve will provide a unique opportunity for visitors to enjoy a wild river experience in the Mackenzie Mountains.

Nahann will provide members of the Fort Liard Band and neighbouring communities with opportunities to derive appropriate economic benefits. The park reserve will also develop co-operative programs with neighbouring land management agencies, including territorial parks, to ensure a complementary approach to the management and protection of natural and recreation resources in the region.

#### The five zones are:

# Zone I - SPECIAL PRESERVATION

This zoning designation is applied to specific areas or features which deserve special preservation because they have been preserved essentially unimpaired and because they contain or support unique, rare or endangered features, or the best examples of natural features characteristic of a specific natural region of Canada. Access and use will be strictly controlled or may be prohibited altogether. No motorized access or man-made facilities will be permitted.

#### Zone II - WILDERNESS

This soning designation is applied to extensive areas which are good representations of each of the natural history themes of the park and which will be maintained in a wilderness state. Only certain activities requiring limited primitive visitor facilities appropriate to a wilderness experience will be allowed. Limits will be placed on numbers of users. No motorized access will be permitted. Management actions will ensure visitors are dispursed.



Caribon O

Zone III - NATURAL ENVIRONMENT

This zoning designation is applied to areas which will be maintained as natural environments and which can sustain, with a minimum of impairment, a selected range of low-density outdoor recreation activities with a minimum of related facilities. Non-motorized access will be preferred. Access by public transit will be permitted. Controlled access by private vehicles will only be permitted where it has traditionally beer allowed in the past.

#### Zone IV - OUTDOOR RECREATION

This zoning designation is applied to limited areas that can accommodate a broad range of educational and outdoor recreational opportunities and their associated facilities in ways that respect the natural landscape and that are safe and convenient. Motorized access will be permitted and may be separated from non-motorized access.

#### Zone V - PARK SERVICES

This zoning designation is applied to towns and visitor centres in certain existing national parks which contain a concentration of visitor services and support facilities as well as park administration facilities. Motorized access will be permitted

In 1976, Interim Management Guidelines were prepared to provide direction for the operation and management 1 of Nahanni National Park Reserveu util a Management Han was completed. The Interim Management Guidelines applied the following zoning classifications to Nahanni. Thesesant owners will be in effect until this park reserve's Management Plan is prepared and approved the Anagement Plan is prepared and approved.

Zone 1 - SPECIAL PRESERVATION - includes the Sand Blowouts, Yohin Lake, Wildmint Hot Springs, Rabbitkettle Hot Springs, Hole-inthe-Wall Hot Springs, Grotie Valerte, the Deadmen Valley sheep licks, and ponds between Virgnia Falls and Rabbitkettle Lake on which trumpeter swan sest (see

Zone II - WILDERNESS - all those areas of the park reserve not classified as Zone I or Zone IV.

Zone IV - OUTDOOR RECREATION - South Nahanni River between the east park

There are no Zone III - NATURAL ENVIRON MENT and Zone V - PARK SERVICES areas in

#### PLANNING PRINCIPLES

The Planning Team proposes the following draft "Planning Principles" to guide planning and management decisions during the Nahanni Management Planning Program. This set of guidelines was prepared through review of

- The National Parks Act (1974) and Parks Conada Policy (1979);
- Nahanni's Park Purpose and Objectives Statement, and
- background information regarding Nahanni's natural resources, history, visitor use and its regional setting.

The Planning Principles provide a definition of Parks Canada's philosophy and mandate for Nahanni National Park Reserve in particular. Consequently, the Planning Principles define a range within which management planning decisions should be considered. The Draft Planning Principles are

- Wilderness is the essence of Nahanni National Park Reserve. Maintaining this river corridor wilderness\* is the prime planning principle.
- Only those land uses and activities compatible with this river corridor wilderness will be encouraged.
- 3. Parks Canada will encourage those visitor activities in Nahanni that require a minimum of support, essential primitive (if any) facilities, self-reliance on the part of visitors, and a lowdensity of use.
- Nathanni National Park Reserve is a UNESCO World Heritage Site. The Management Plan must be compatible with Parks Canada's international obligations under the World Heritage Site convention.
- Park operations and management will be consistent with the first planning principle.
  - Public access into Nahanni National Park Reserve will be managed to maintain the river corridor wilderness.

River corridor wilderness, in the case of Nahonni National Par Reserve, implies an essentially unaltered, primitive and unpoluted river corridor which includes the areas bordering the rivers within the park reserve's poundaries.



Yohin Lake

Oo you deel these zone classifications and their toxtent are appropriate and should be incorporated in the Management Plan?  DOMMENTS (please write your comments here).	Do you believe these draft Planning Principles provide the appropriate direction for the Nahami Management Planning Program?  COMMENTS.

## PLANNING ISSUES

As a guide by which Parks Canada manages the resources and uses of a national park or park reserve, a Management Plan must address and resolve any outstanding and anticipated problems regarding resource management and visitor use. Fundamental questions regarding the level of resource protection and the level and type of visitor use which would be acceptable to the public and which would be compatible with Parks Canada's mandate and the Park Purpose and Objectives Statement must be resolved.

Parks Canada has identified a number of issues which should be resolved by the Nahanni Management Planning Program. This list may be incomplete and Parks Canada urges you to raise any other issues you feel should be addressed in the Nahanni Planning Pragram.

A brief description of each issue follows. These descriptions are accompanied by a number of questions in order to highlight the problem, and a space in which you are encouraged to write your comments. Please write your comments in the spaces provided, then detach and send us the mail-

back portions of the newsletter. A postage-paid envelope is provided with this newsletter.

This first stage of the Public Participation Program,
"Information Exchange and Collection", is the
foundation for all remaining steps and decisions in
the planning process, Your responses to the following issues will be used to prepare a number of Plan
Alternatives for Nahami. The Plan Alternatives
will propose different ways by which Parks
Canada may manage the resources and uses of
Nahami. Your participation now is essential to the
future management of this National Park Reserve.

# NATURAL RESOURCE MANAGEMENT

Porks Conodo Policy regarding Natural Resource Management states: "Natural resources within national parks will be protected and managed with minimal interference to natural processes to ensure the perpetuation of naturally evolving land and water environments and their associated species." page 41.

How should Parks Canada's objectives for Natural Resource Management be met in Nahanni?



Sportfishing is a popular visitor activity in Nahami. The most common game fish species caught are Arctic grayling and Dolly Varden trout. The calch limit for fish in Nahami is set according to the limits outlined in the "National Parks Angling Regulations". In addition, the low productivity of fish species in cold northern waters such as the South Nahami River must be faken into considera-

Fish catch limits are generally set on the basis of an assessment of fish productivity, habital availability, the percentage of visitors per year who fish, the fish catch by anglers in previous years and the number of visitors/year expected in the future. An ongoing assessment of the productivity of naturally regenerating native fish species of the South Nahanni River is required in order to determine the capability of this resource to sustain sportfishing. Parks Canada will consider the restriction of sportfishing in Studies indicate a decreasing fish pooulability.



b) Wildlife Management

Although Parks Canada has a mandate to pretest and manage wildlife found in Nahami, its jurisdiction to do so is limited to a species range within the park reserve's boundaries. The seasonal ranges of important wildlife species such as Dall's sheep, caribou and grizzly bear, which are characteristic of the Markenize Mountain natural region, are located in areas adjacent to Nahami. Wildlife management in Nahami therefore, is presently confined to the preservation of wildlife species and their habitats within the park reserve. The resolution of wildlife/visitor use conflicts, such as bear/human interaction and the disturbance of wildlife by visitors along the river corridors and in the backcountry areas have been the primary wildlife management concerns.



Wildfire

c) Fire Management

Natural wildfires have always been a part of the natural environment of the South Nahanni River watershed. Most of the watershed has been burned at some time in the past. Fire can also be an important management factor for maintaining the diversity of wildlife habitats in an area.

One area of Nahanni, from Yohin Ridge to the east park boundary is designated as a total fire suppression area. Under the terms of Parks Canada's current Memorandum of Agreement (December, 1982) with the Department of Indian and Northern Affairs (D.I.A.N.D.), DI.A.N.D. will attempt to control all fires that originate in this area of the park reserve.

The remaining areas of Nahanni, as well as the areas adjacent to Nahanni, are designated as an observation zone. Fires originating in these areas will not be suppressed unless they threaten life or property.

studies indicate a decreasing fish population.		threaten life or property.
How can Nahanni's fish resource best be protected and managed?  GOMMENTS (please write your comments here).	How can Nahanni's wildlife species be best protected and managed? Specific areas and features of Nahanni important for the continued survival of a wildlife species can be protected through Parks Canada's Zoning System and/or specific regulations. What is the best method to accomplish these aims? Should visitor access to some areas be restricted to ensure important wildlife species are not disturbed? What type of wildlife management agreement with the Government of the Northwest Territories, if one is considered, would best protect and manage Nahanni's wildlife? COMMENTS.	What role should fire play in the natural environment of Nahanni? How should wildfires be managed in Nahanni? How should wildfires be should fire in the park reserve be extinguished in all instances, or, only in specific instances in order to ensure visitor safety, protection of special natural environments, or to protect park facilities? COMMENTS.

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# RESOURCE PROTECTION — SPECIAL PRESERVATION AREAS

Parks Conodo Policy regarding Resource Protection states: "Natural resources within national parks will be given the highest degree of protection to ensure the perpetuation of a natural environment esentially unaltered by human activity;" page 41

The Zone I classification of the National Parks Zoning System is applied to specific areas or features of a national park or park reserve which deserve special preservation because they contain or support unique, rare or endangered features, significant cultural resources or the best example of natural features represented by that national park. The primary park management objective of the Zone I designation is preservation of park resources. No motorized access or man-made facilities will be permitted. Access and use may be prohibited entirely or may be permitted with strict controls.

The need to preserve a number of specific areas and features of Nahanni National Park Reserve was recognized by park administrators in the past. The Interim Management Guidelines for Nahanni, prepared in 1976, designated the Sand Blowouts,



Dall's Sheen skeleton, Grotte Volerie

Yohin Lake, Wildmint Hot Springs, Grotte Valerie, Deadmen Valley sheep licks and the ponde between Virginia Falls and Rabbitkettle Lake on which trumpeter swans nest as Zone 1 - Special Preservation areas (see map 1). These areas have and will continue to be managed in accordance with the preservation objectives of the Zone I classification until the Management Plan for Nahanni is complete?



Lands for the establishment of Nahanni National Park Reserve were withdrawn and set aside for use as a national park by Order-in-Council on February 22, 1972. On April 9, 1976, Nahanni was officially proclaimed as a "reserve for a national park subject to a settlement of any right, title or interest of the people of native origin". The purpose of this park in the National Parks System is to protect for all time a representative natural area of Canadian significance in the "Mackenzie Mountains Natural Region".

The present boundaries of Nahanni were originally selected in order to establish a wild river national park, and were identified under the assumption that they could be altered once extensive research of this area and its surrounding region had been undertaken. At that time, it was believed these studies would identify areas adjacent to the present boundaries which, if added to the park would provide a greater representation of the characteristic features of the "Mackenzie Mountain" region and would result in the inclusion of a majority of the wildlife habital areas important to the wildlife species found within Nahanni.

Research completed to date has identified areas adjacent to Nahanni that would add natural history features characteristic of the "Mackenzie Mountains" poorly represented at present. Extension of park boundaries to include these areas would also result in the inclusion of the seasonal range of a number of wildlife species. The inclusion of these habitat areas would enable Parks Canada to truly complete the properties of th





Should any or all of those areas and features of Nahanni currently designated as Zone I be designated as Zone I - SPECIAL PRESERVATION in the Management Plan?	What changes to the present park boundary, if any, would you propose?  COMMENTS.
What other areas and features of Nahanni, if any, should be designated as Zone I?	
Should controlled public access to and use in Zone I areas be permitted? If so, in which areas and under what conditions? What precautions would be necessary to protect the resource and the visitor?	
COMMENTS.	

#### VISITOR USE

Parks Canuda Policy regarding visitor use states: "Parks Canada will provide those outdoor recreation opportunities which are a means for park visitors to enjoy and understand a park's natural environment and which are consistent with the protection of park resources." page 43.

Nahani has been managed and operated as a wilderness river national park since its establishment in 1972. The park's purpose has been to preserve the South Nahanin River and its spectacular Virginia Falls in their wilderness state and to provide the visitor with the opportunity to experience the wilderness nature of the South Nahanin River.

The Park Purpose and Objectives Statement for Nahami states that the primory visitor experience offered in Nohami will be "superb wild river touring" on the South Nahami and Flat rivers and that "the park encourages appreciation and enjoyment of its wilderness, rugged environment and natural heautu".

Since its establishment, relatively few people have visited Nahanni each year; the average yearly visitation ranges between 400 and 500 visitors. Visitor use has largely been oriented towards use of the South Nahanni River. The low levels of visitation experienced at Nahanni have contributed to the maintenance of the opportunity for the visitor to obtain a wilderness river experience. The completion of the Liard Highway in the near future is expected to result in increased visitation to Nahami since it will provide road access to within 30 kilometres of the eastern park boundary. It is possible that increased visitation could result in a diminished wilderness river experience for visitors and a need for more intense land use



Visitor use of the backcountry of Nahanni has been extremely limited in the past. Recently however, off-river hiking trips into several park areas have become increasingly popular. There are no developed hiking trails in the park reserve.

Virginia Falls is the only area in Nahanni which experiences significant levels of day-use visitation. In order to provide day-use access to this site, aircraft landings are permitted in an area immediately above Virginia Falls.



Canoeing.



Jetboating



Virginia Falls campground.



a) Visitor Use on the South Nahanni and Flat Rivers

Given the wilderness character and protection objectives of Nahanni, what kind and level of visitor use is appropriate on the South Nahanni and Flat rivers?

Should Parks Canada continue to provide opportunities for day-use at Virginia Falls?

COMMENTS (please write your comments here).

Should river touring by motorboat be permitted or should river touring be restricted to non-motorized watercraft?

Should the number of visitors on the river at any one time be limited? If so, in which instances and how? Should the size of individual visitor groups be controlled?

What kind of visitor service facilities (such as fire pits, campgrounds, picnic tables), if any, should Parks Canada provide for river touring visitors? COMMENTS

b) Off-river Visitor Use

Should Parks Canada provide opportunities for the visitor to experience the rugged wilderness environment of the off-river areas of Nahanni?

If so, what kind and level of use is appropriate and what type of visitor facilities and services, if any, should Parks Canada provide to support this type

of visitor use?
COMMENTS.



Tour of Rabbilkettle Hot Springs.

#### ACCESS

Access to Nahanni is limited. There are no roads to the park reserve; access is gained by air or water. Aircraft access is currently the most popular and practical way to reach Nahanni. Aircraft charter from Fort Simpson or Watson Lake to Rabbitkettle Lake has been the primary mode of access to Nahanni. At present, aircraft landings are permitted at Rabbitkettle Lake, Virginia Falls and with special permission from the Superintendent, at Deadmen Valley. Virginia Falls is the only location at which aircraft access for davane is permitted.

Aircraft use within Nahanni is controlled by the Superintendent in accordance with the Nationa Parks General Regulations.

Although mojorized boat access to Nahanni is not as common as aircraft access, il is an important means by which visitors can reach Nahanni. Motorized boat access generally originates from Nahanni Butte. This type of river travel is only permitted on the lower reach of the South Nahanni River below Virginia Falls.



View of First Canyon.

#### GUIDING AND OUTFITTING

Commercial guiding and outfilling operations are currently permitted to operate in Nahanni. These operations permit people, who otherwise might be unable to do so, to visit and experience Nahanni produces established in Nahanni's futerim Monogement Guidelines. The group camping areas at Dry Caryon Creek in Deadmen Valley, and at the Plat River confluence are maintained for use by the commercial guiding and outfitting operator who provides motorized watercraft (jetboat) tours in Nahanni.

The two commercial non-motorized outfitting operations, which provide railing and canoeing tours on the South Nahanni River, and the jetboat outfitter who provides access to Virginia Falls from Nahanni's eastern boundary, accounted for twenty percent of the visitors to Nahanni in 1981. The jetboat outfitter did not operate in the 1982 visitor season.



Raftington



Outfitter's camp.





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What should be the role of aircraft in providing access to Nahanni?

Is the use of aircraft to provide visitor access to Nahanni compatible with the wilderness character and the protection and visitor use objectives of Nahanni?

If so, what type of aircraft use is appropriate? For example, is the use of aircraft to provide access for day-use appropriate? Would the use of aircraft to provide overflight sightseeing be appropriate? Should aircraft be permitted to land in the park reserve? If so, under what circumstances? Should fuel caches be permitted in the park reserve?

COMMENTS

b) Motorized Boat Access - Water Access
Is the use of motorized watercraft compatible with
the objectives of Nahanni? If so, what type of
motorized watercraft is appropriate and to which
areas of Nahanni should such access be permitted?
COMMENTS.

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What should be the role of the guide and/or
outfitting operator in providing visitor access and
use opportunities in Nahanni?
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Is guiding and outfitting compatible with the wilderness character and the protection and use objectives of Nahanni? It so, what type of guiding and/or outfitting operations would be most appropriate; motorized, non-motorized or both? What level of visitor facilities and services, if any, should be provided in Nahanni to support this use?

# PARK ADMINISTRATION AND



to at the contract of the

The Superintendent of Wood Bulfulo National Park was responsible for the administration of Nahanni until March, 1976. At that time, a decision to establish temporary administrative headquarters for Nahanni in Fort Simpson was made. With the employment of a Superintendent and support staff, the administrative functions for Nahanni were provided entirely in Fort Simpson. The Administrative Centre also provides a park visitor information service.

Responsibility for the daily operation of Nahami rest largely with the park reserve's Warden Service, with supervisory direction from the Superintendent. A Warden Station located at Nahami Butte on the South Nahami River near its confluence with the Liard River has served as Nahami's operational centre since 1973.

Fort Simpson is located 145 air kilometres from Nahanni Butte, and 388 air kilometres from Yellowknife. Regularly scheduled flights to and from Nahanni Butte are not available; travel between Fort Simpson and Nahanni Butte is accomplished by air charter. Regularly scheduled air travel between Fort Simpson and Yellowknife is available.

The present locations of Nahanni's administrative headquarters in Fort Simpson and its operational field headquarters in Nahanni Butte are considered temporary. A final decision regarding their locations will be reached following analysis of this issue in this Management Planning Program.

# REGIONAL INTEGRATION AND PLANNING

It is Parks Canada's policy to integrate the establishment, development and operation of a national park within the region surrounding that particular park area so as to have a positive social, economic and physical impact. Parks Canada's obtections for engined integration are.

ctives for regional integration are: a) to co-operate with municipal, provincial or territorial and federal agencies responsible for planning areas adjacent to a park so as to resolve social, economic and physical impacts to the region occurring as a result of the park, in a fashion compatible with Parks Canada's objectives and policies, and

objectives and policies, and b) lo minimize possible adverse effects on the park reserve's heritage resources which may occur as a result of policies for and/or development of the lands or waters in the region surrounding the park pursued by private interests, municipal, provincial or terrilorial governments, or federal agencies.

By acting in a manner sensitive to local and regional concerns and in close association with

other government agencies, Parks Canada strives to meet its mandate in a manner beneficial to the surrounding region. Concern for the impact of its actions does not however imply that Parks Canada is a program of regional, social or economic develonment.

To date, Parks Canada has identified the following

- mineral exploration and exploitation in the Nahanni and Flat rivers watershed upstream of Nahanni National Park Reserve;
- 2) Nahanni's role in regional tourism development given the completion of the "Tourism Plan for the Northwest Territories" and
- completion of the Liard Highway and the affect of a regional road system.

It is important to note that although regional tourism development, roadway development and industrial development have the potential to affect Nahanni's resources directly, Parks Canada does not have direct control over these activities.



Ragged Range

What is the most effective location for Nahanni's administrative and operational headquarters? Should separate locations for each function be continued? If so, should the operational headquarters operate on a year-round or seasonal basis?  COMMENTS (please write your comments here).	a) Regional Tourism What role, if any, should Parks Canada assume in the development of regional tourism opportunities? Is that role compatible with the wilderness character and the protection and use objectives for Nahanni? What programs, if any, are necessary to fulfill that role? COMMENTS.	b) Regional Industrial Development How can Parks Canada minimize the harmful effects of water pollution, and the potential disturbance of wildlife populations in formerly isolated areas, which can result from mineral extraction activities that occur outside the park boundary? COMMENTS.
		c) Regional Road Development How could Parks Canada meet the increased visitation demands anticipated with the completion of the Liard Highway, in a manner compatible with the wilderness protection objectives of Nahanni?

# NAHANNI HELP PLAN ITS FUTURE

# HOW YOU CAN PARTICIPATE

You can help pion Nahanni's juture! Parks Canada will hold public meetings to provide you with the opportunity to meet with the Planning Team to discuss the Nahanni Management Planning Program. These meetings will be held in March and April, 1983. The meeting schedule will be announced in local and regional newspapers and in an Information Update Leaflet which will be distributed to people on the Nahanni Mailing List.

At the formal public meetings and in informal public forms such as drop-ins and workshops, you will have the opportunity to learn more about Nahami and this planning program. You will also have the opportunity to serves your ideas and opinions regarding the Nahami Planning Program, the Park Purpose and Objectives Statement and the planning issues presented in this pamphlet. You are also invited to provide information you may have regarding Nahami and to identify issues regarding Nahami seed opponent and management which you feel should be addressed in this planning program.

planning program.

If you are unable to attend a public meeting or if a meeting is not being held in your a area, please submit your ideas and concerns to the Planning Team in a letter or a brief, or, by completing the mall-back comment portions of this neweletter. If you have specific questions regarding Nahami's resources, the planning process, the public participation program and/or the planning issues presented in this newsletter, please write the Planning Team. A postage-paid envelope is provided with this newsletter, program awrite to:

Nahanni Public Participation Parks Canada Fourth Floor, 391 York Avenue Winnipeg, Manitoba R3C 487

#### WOULD YOU LIKE MORE INFORMATION?

A brief description of the natural history, human history, visitor use and facilities of Nahanni National Park Reserve is included as the last two pages of this newsletter. Copies of the Parks Canada Policy (1979), the Planning Process for National Parks, the National Parks Zoning System, Nahannis Interim Monogement Guidelines, an Information Booklet on Nahanni's natural history human history and use as well as more detailed information on Nahanni's heritage resources are also available.

If you would like copies of the documents referred to in this newsletter and/or the background information, or, if your name has yet to be placed on the Mailing List, please clip and mail the following coupon to the Planning Team. A postage-paid envelope is provided with this newsleth in this review.

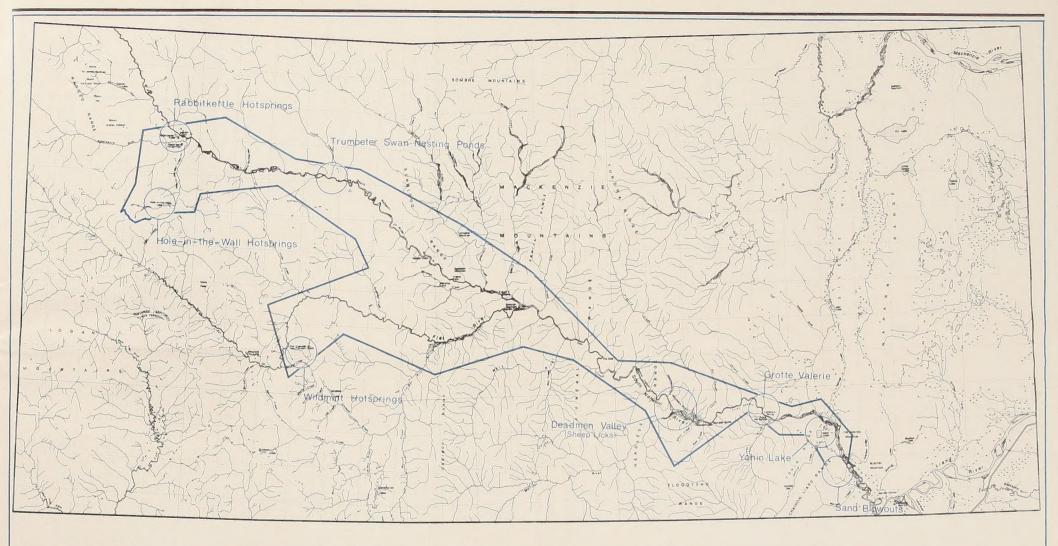
#### WHAT HAPPENS NEXT!

- Public meetings will be held in March and April, 1983. Exact meeting locations and times will be advertised prior to the meetings.
- Your comments and opinions regarding Nahanni and the planning issues expressed through the mail-back comment portions of this newsletter, briefs and letters and in the public meetings will be recorded. A summary of this public input will be prepared and distributed to the people on the Nahanni Public Participation Mailing List.
- The Planning Team will use public input from this first stage of the Nahanni Management Planning and Public Participation Program, information regarding the natural resources, history and visitor use of Nahanni, Parks Canada's legislation and policy, socio-economic information, and information regarding land use in the surrounding region to formulate Plan Alternatives. The Plan Alternatives will then be distributed to the people on the Mailing List, for their review and evaluation.

NAHANNI MANAGEMENT PLANNING AND PUBLIC PARTICIPATION PROGRAM (Another issue(s) I believe should be examined in the Nahanni Management Planning Program is:	□ Please place my name on the Mailing List     Please send me a copy of:     □ Parks Canada Policy     □ The Planning Process for National Parks     □ The National Parks Zoning System     □ Nahanni's Interim Management Guidelines
	☐ The Nahanni Information Booklet  Please send me information about Nahanni's:  ☐ vegetation ☐ wildtife ☐ geology ☐ geomorphology ☐ climate ☐ hydrology ☐ human history
	visitor use and facilities My address is:
	Name:
	Address:
	_



OTHER COMMENTS.	
	1





Camping at Rabbitkettle Lake.









MAP 1 NAHANNI NATIONAL PARK RESERVE

LEGEND	LEGENDE
RIVER AND STREAM	
INTERMITTENT STREAM	COURS D'EAU INTERMITTENT
SAND, GRAVEL OR MUD C.	SABLE, GRAVIER OU BOUE
LAKE	LAC
SWAMP +	MARAIS
ROAD	CHEMIN
AIRPORT +	AEROPORT
PARK BOUNDARY	FRONTIERES DU PARC
SPECIAL PRESERVATION AREAS	REGIONS DE PRESERVATION SPECIALE

Miles 5 0 5 10 15 20 25 30 Kilométres

# AN OVERVIEW OF NAHANNI NATIONAL PARK RESERVE

#### REGIONAL SETTING

Nahani National Park Reserve is a 4,706 km vilderness area of striking and varied landscapes located in the southwestern corner of the Northwest Territories. The park reserve includes a 300 km section of the South Nahanii River extending from Rabbilstettle Lake to Overflow Creek, approximately 38 km upstream of the small community of Nahanii Butte. Halso includes the lower 128 km of the South Nahanii River's tributary, the Flat River (see Maps 1 and 2). In 1978, Nahanii National Park Reserve was declared a World Heritage Site under the UNESCO World Heritage Convention. Both the South Nahanii and Flat rivers provide superb opportunities for wild river futurior.

The South Nahami and Flat rivers originate in the glaciers and snowfields of the Selwyn Mountains, 200 km to the northwest of Nahami's western boundary. The first 118 km of the South Nahami River included within the park, from Rabbitkettle Lake to Virginia Falls, meanders slowly across a broad valley bottom. At Virginia Falls, the river plinnmets 90m into the first of four canyons which are up to 1,200m deep, the canyons found in the fifth smeetic from the falls to Kraus Hol Springs are some of the most spectacular in Canada Downstream of Kraus Hot Springs, the South Nahami river flows into numerous branching channels known as the Solits and basses between

the outlying Nahanni and Liard mountain ranges. It flows into the Liard River at the community of Nahanni Butte. The Liard River joins the Mackenzie River at Fort Simpson. The Flat River flows into the South Nahanni River 30 km downstream of Virginia Falls.

weather roads in the vicinity of Nahanni National Park Reserve are limited. With the exception of the Liard Highway which, once completed, will provide road access from Fort Nelson to the Mackenzie Highway Jusis south of Fort Simpson, road development which does occur in the region is support of non-renewable resource development such as mineral exploitation and exploration and oil and gas exploration, in addition, lew communities exist in the immediate region surrounding Nahanni. The community of Tungsten located at the headwaters of the Flat River, is the largest with a population of six hundred people. The community of Nahanni and Liard rivers has a population of eighty people. Most members of this community are Slavey Indians who belong to the Fort Liard Band and follow a traditional Higstyle based upon a hunting and trapping economy.

Nahanni National Park Reserve is only accessible by boat or aircraft. The primary entry point for

most visits to Nahanni is Rabbitketile Lake. Air charter service to Rabbitketile Lake is available in Fort Simpson, Northwest Territories, 308 km to the east, and in Watson Lake, Yukon Territory, 224 km to the southwest. The Mackenzie Highway provides road access to Fort Simpson. Road access to Watson Lake is available via the Alaska Highway. Scheduled air service to both of these centres is also available. Aircraft charter to the Moose Ponds and Broken Skull areas outside of the Poak to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Nahanni Butte to gain access to the Pat River, and to Rabanni Butte to gain access to the Pat River, and to Rabanni Butte to gain access to the Pat River, and to Pathanni River.

Access to the South Nahanni watershed without he use of chartered aircraft is possible by three overland and river routes. The first is to follow the Bittle Nahanni River near Tungsten directly to its confluence with the South Nahanni River. The second is to descend the Flat River from Tungsten. The second is to descend the Flat River from Tungsten. The second is to descend the Flat River from the Macmillan River from the second flat of the Macmillan River from the second with the Macmillan River from the second with the second River from the second for the second with the second River from the Moose Ponds and the South Nahanni chainings system. A period of one to two weeks would be required to reach the park reserve via awarne of these routes.

JAP 2 REGIONAL SETTING OF NAHANNI NATIONAL PARK RESERVE



## VISITOR USE

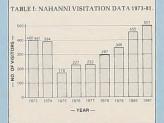
In comparison to southern national parks, visitation to Nahani has been relatively low since its establishment as a national park reserve in 1972 (see Table 1). This situation can be attributed to Nahanni's relative inaccessibility, the high cost of access and the unique experience - wild river touring, which is offered by his park reserve. The low levels of visitor numbers at Nahanin have, however, contributed to maintenance of its wilderness character and mystime.

All visitors to Nahanni National Park Reserve are required to register in a the Park Administration Office in Fort Simpson, the warden station at Nahanni Butte or the warden station at Rabbitkettle Lake, and upon completion of their trip, to register-out at the park offices at Nahanni Butte or Fort Simpson.

The length of stay by visitors to Nahanni varies from a few hours by those visitors who fly to Virginia Falls or the

Kraus Hot Springs, to five to twenty-one days or more by those visitors who travel down the Flat or South Nahanni rivers. In 1981, the average stay was ten days and the average group size was six persons. Day use at Virginia Fall's accounted for ten percent of the total visitation in 1981. Day use at Kraus Hot Springs accounted for five percent of Nahanni's visitation in 1981. Day use at Kraus Hot Springs accounted for five percent of visitation in 1981. In the confidence of the percent of visitation in 1981, twenty percent of visitors to Nahanni used commercial qualitative and equities exprises.

Off-tiver hiking trips are becoming a popular activity by those visitors who four down the Flat and South Nahanii rivers. The most common routes are an 8 km hike up Sunblood Mountain and a 4 km hike to Marenge Falls from Virginia Falls, as well as a hike up Prairie Creek or Dry Canyon Greek from Deadmen Valley.



# NATURAL HISTORY

Geology

The geologic history of the park reserve may be summarized as follows: during the Palezzoic Era, which occurred between 500 and 300 million years ago, sedimentary material was deposited into an intand sea which covered the area now characterized by the Mackenzie Mountains. Beds of sandstone, shale and limestone up to 6,000m in depth were formed as a result. In the Mesozoic Era, which occurred between 300 and 70 million years ago, pressures originating along the edge of the Pacific Crustal Plate released mountain building forces (tectonic activity) hat deformed this flatilying sedimentary formation. The Mackenzie Mountains were formed as a result. I a series of intrusions of igneous rock (batholithic intrusions) associated with this tectonic activity resulted in the formation of the Ragged and Selwyn mountain ranges. Renewed up-lifting occurred early in the Cenzoic Era [70 million years ago to the present]. This activity increased the relief of these mountains and created the anticlinal (upfolds) and synclinal (downfolds) features found in the eastern portions of the park reserve. Some residual uplift and deformation may be continuing at the eastern portions of the park reserve. Some residual uplift and deformation may be continuing at the eastern portions of the park reserve. Some residual uplift and deformation may be continuing at the eastern portions of the park during this present epoch. Recent geologic history is dominated by continental erosion, with short episodes of glacial action interspersed with longer periods of river erosion. The glacial action diverted western rivers eastwards so that the South Nahanni and other larger rivers to the north now drain east across the grain of the land. Because it follows the river, the park reserve provides a good west-east sample of all the geology of the southern Mackenzie Mountains.

As a result of the geologic history of the area three distinct bedrock regions can be easily identified in Nahanin National Park Reserve. At the western extremity the highest and most rugged mountains of the park reserve were formed by the erosion resistant igneous rocks. From Hole-in-the-Wall Creek to the east end of Third Ganyon the rocks are rather weak Lower Paleozoic sediments. From Headless Range to the eastern park boundary the rocks are more massive and represent Upper Paleozoic sediments.

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Vegetation
Nahami lies in the extreme southern portion of the
Mackenzie Mountains. Its forest cover is
dominated by white and black spruce, and includes
areas with mixtures of spruce, poplar and white
birch as well as black spruce and tamarack bogs.
The transition of vegetation from a closed boreal
forest of populars/white birch/spruce in the broad

lowland valleys to alpine fundra, with increasing altitudes, is evident in Nahanni. Its forest cover therefore is classified as the Alpine Forest-Tundra type of the Boreal Forest Region of Canada. The evidence of volldfires in the park area is common Wildfires are a normal and cyclic component of the boreal forest. Few areas, other than those professed by natural fire breaks such as the South Nahanni and Plat trivers are safe from wildfires in

Nahami.

Although the vegetation of the Mackenzie Mountains is rich and varied, the richness and diversity of vegetation in Nahami National Park Reserve is unique. Reasons for its unique diversity of vegetation includes the fact that, as a result of its linear nature, the park transects approximately 225 km of the Mackenzie Mountains from an area of high elevation and low precipitation to their eastern limit, an area of low elevation and low precipitation. The resulting major differences in local climate and weather systems, geology and glacial history have resulted in a number of different habitats. In addition, the presence of highly specialized habitats such as wet limestone surfaces, mist zones at waterfalls, hot and cold mineral springs, unglaciated terrain, and areas of discontinuous permafrost have also contributed significantly to the number of vegetation species which exist in Nahami.

Wildli

Nahami National Bark Reserve supports a variety of wildlife species Thirtyone mammalian species. 120 bird species and two amphibian species have been recorded in the park reserve. Opportunities to observe moose, beaver and black bears are common. Dall's sheep are found in some of the alpine tundra areas of Nahami and woodland caribou can be found in the upper sections of both the Flat and South Nahami river valleys. Those bird species which are of particular significance are the peregrine falcon, golden eagle and trumpeter swan.

Hydrolog

The distinge basis of the South Nahann, River has a total area of 34,777 km<sup>2</sup>. Although only a portion of the South Nahami's tributaries are encompassed by Nahami National Park Reserve; their cumulative effect is to greatly increase its flow volume within the park reserve's boundaries. For example, the South Nahami's mean annual flow [measured in cubic metres per second] at Krambi to Springs, 741 kms downstream of Virginia Falls

is one hundred and ninety-five percent greater than that at Virginia Falls. The increase in the flow volume is largely a result of the entry of the Flat River, which drains an area of 8,500 km<sup>2</sup>, 30 km downstream of Virginia Falls.

During May, How volumes increase by as much as 900 percent from April as enow accumulations in the valley bottom melt and enter the Flat and South Nahanni rivers. The mean daily discharge of the South Nahanni River will usually increase until the middle of the month and then drop in late May as the low altitude snowmell is completed. A rapid increase in discharge occurs in June, with both the Flat and South Nahanni rivers peaking during the last three weeks in June. It is not uncommon, however, for the South Nahanni River to remain high or moderately high until late August. During normal June peak periods, large daily variations in water levels are present as the high altitude snowmelt rate responds to changes in temperature, the daily length and intensity of the sun's radiation, and precipitation. Mean July flow levels also occur in August. In July and August, hot summer weather will result in increased glacial melting and consequently in a daily cycle of increased water volumes outlines continue to diminish However, prolonged and intense pracipitation in this period can also carellin larges and suden However prolonged and intense pracipitation in this period can also carellin larges and suden fluctuations. Flow levels and can are sufficient to the summer countries are responsed to the prolonged and intense pracipitation in this period can also carellin larges and suden fluctuations. Flow levels

The Flat and South Nahanni river drainage basins are characterized by rapid run-off and a quick response to water input. In the upper reaches of up to one metre may occur within a matter of hours, during periods of heavy precipitation. In the lower reaches, however, a lag period of up to 48 hours prior to increased water levels will normally follow the onset of precipitation.

Although there are great variations in the peak flow periods and their magnitude as well as the characteristic of sudden flooding of tributary streams following intense precipitation are important to recreational paddlers in Nahanni. Flow volumes dictate the difficulty of navigating individual rapids and that of the South Nahanni and Flat rivers in general.

## **HUMAN HISTORY**

Peior to the 18th century, the Nahanni region was occupied by Athapaskan speaking Indian Iribes (Slavey and Nahanni). It is believed that these claive people did not come into contact with Europeans until the late 18th century, when exploration of the Mackenzie River basin was being pursued by the North-West Company. Direct contact with the native people who inhabited the Nahanni area first occurred in 1823 as a result of the efforts of the Hudson's Bay Company, The Hudson's Bay Company operated a fur trade post on the South Nahanni River for one season in 1825. No other trading post was established there until about 1915. Although the fur trade route subsequently bypassed the South Nahanni River, bands in the Nahanni accontinued to be involved in the fur trade; they traded at Forts Norman and Wrigley, Anglican and Roman Catholic missionaries first arrived in this region in the late 1850; By the Close of the 19th century, the South Nahanni watershed was still largely unknown.

Stimulated by the Klondike Gold Rush of 1898, the search for gold, and later other minerals, became the primary focus of activity in the Nahami area. Nahami's legendary reputation as a land of gold and death was established in 1988 when a search party discovered the headless bodies of two prospectors. Willie and Frank McLead, at the western end of the valley now named Deadmen Valley. The lure of gold and the adventure offered by the opening of the northers frontier confused to altract prospectors and trappers such as Marlin Jorgenson, Albert Fatile and Foole Field. Several ded under what were considered to be dubrous

In the 1930's and 40's, the pattern of individual prospecting efforts gave way to the consolidation of interests to form mineral exploration companies. These companies were no more successful in locating mineral resources than the earlier prospectors. In the 1950's and 60's, large corporations continued the search for mineral resources in

the Nahanni area. Only Canada Tungsten Mining Corporation (1955) located sufficient resources to promote development of a mining operation, townsite, airport and all-weather road in the early 1960's.

The potential for the establishment of a national park in the Nahanni area was discussed as early as 1986. However, the first official examination of the South Nahanni River as a potential park area by the federal Department of Indian Affairs and Northern Development was not conducted until 1982; a firm park proposal was not presented until 1989. During this period the hydro-electric power gen-rating potential of Virginia Falls and the Flat River was evaluated. On February 22, 1972, a 4,766 km² wilderness area was withdrawn for use as a national park. Nahanni National Park was officially proclaimed as "a reserve for a national park", subject to a settlement of any right, title or inforest of the people of native crigin on Antile, 1975.

# PARK DEVELOPMENT

In accordance with the wilderness nature of the Flat and South Nahann irvers, development of visitor facilities within this park reserve has been ilmited. Primitive campgrounds have been established at Rabbitkettle Lake, Virginia Folls, Marengo Greek, Big Bend, Deadmen Valley and Kraus Hot Springs. Overnight visitors to Virginia Falls are required to camp at the primitive campground established there. Visitors are not however, required to use the other primitive

ampgrounds established in Nahanni; they may nd their own campsite along the river corridor.

An outfitter's group camping area at Dry Canyon Creek in Deadmen Valley and one near the confluence of the Flat River have also established.

Warden cabins have been built at Rabbitkettle Lake, Sunblood Mountain, the Flat River confluence and in Deadmen Valley. e bulietin d'actualité si également disponible en

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